

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Horowitz et al. Confirmation No.: To be assigned  
Serial No.: To be assigned Art Unit: 2181  
Filed: January 22, 2004 Examiner: Auve, Glenn Allen  
For: Apparatus and Method for Attorney Docket No.: 60809-5000  
Topography Dependent Signaling

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:
  - 1a. ☒ A list of all patents, publications, applications, or other information submitted for consideration by the office.
  - 1b. A legible copy of :
    - ☐ Each U.S. patent application publication and U.S. and foreign patent;
    - ☐ Each publication or that portion which caused it to be listed on the PTO-1449;
    - ☐ For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
    - ☐ all other information or portion which caused it to be listed on the PTO-1449.
  - 1c. ☐ An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
  - 1d. ☐ Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.
2. ☒ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):
  - ☐ Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
  - ☐ Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
  - ☒ Before the mailing of the first Office action on the merits;

- ☐ Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.

3. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.

*(Check either Item 3a or 3b)*

- 3a. ☐ The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b. ☐ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:  
☐ enclosed  
☐ to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

*(Item 3b to be checked if any reference known for more than 3 months)*

4. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.

The Certification Statement in Item 5 below is applicable.

The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:

- ☐ enclosed.  
☐ to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

5. ☐ Certification Statement (applicable if Item 3a or Item 4 is checked)

*(Check either Item 5a or 5b)*

- 5a. ☐ In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b. ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not **received** by any individual designated in 37 C.F.R. §1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- 5c. ☐ Pursuant to 37 C.F.R. §1.704(d), each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not **received** by any individual designated in 37 C.F.R. §1.56(c) more than thirty days prior to the filing of this information disclosure statement.

6. ☒ This application is a continuation application under 37 C.F.R. §1.60 or §1.53(b) or (d).

*(Check appropriate Items 6a, 6b and/or 6c)*

- 6a. ☐ A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.

- 6b. ☒ Copies of publications listed on Form PTO-1449 from prior application Serial No. 10/359,061, filed on February 4, 2003, of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).
- 6c. ☐ Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. , filed on , and are provided herewith.
7. ☐ This is a Supplemental Information Disclosure Statement. (Check Item 7a)
- 7a. ☐ This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on . A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on .
8. ☐ In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:
- ( Check Item 8a, 8b, or 8c)
- 8a. ☐ satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.
- 8b. ☐ set forth in the application.
- 8c. ☐ enclosed as an attachment hereto.
9. ☒ The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no. 60809-5000).
10. ☒ No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully submitted,

Date: January 22, 2004



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31,066  
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<b>INFORMATION DISCLOSURE CITATION</b>  PTO-1449				<i>Complete If Known</i>	
				<b>Application Number</b>	To be assigned
				<b>Filing Date</b>	January 22, 2004
				<b>First Named Inventor</b>	Mark A. Horowitz et al.
				<b>Art Unit</b>	2181
				<b>Examiner Name</b>	Auve, Glenn Allen
<b>Sheet</b>	1	of	2	<b>Attorney Docket Number</b>	60809-5000

U.S. PATENT DOCUMENTS						
Examiner Initials	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Class	Subclass	Filing Date if Appropriate
	Number - Kind Code <sup>1</sup>					
	4,627,080	12/1986	Debus, Jr., Walter	327	241	
	5,029,272	07/1991	Fourcroy et al.	327	91	
	5,228,064 A	07/1993	Viviano, Jerome J.	375	359	
	5,596,285	01/21/1997	Marbot et al.	326		
	5,684,421	11/04/1997	Chapman et al.			
	5,831,929	11/03/1998	Manning			
	5,838,177	11/17/1998	Keeth			
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	5,860,080	01/12/1999	James et al.			
	5,870,347	02/09/1999	Keeth et al.			
	5,872,736	02/16/1999	Keeth			
	5,892,981	04/06/1999	Wiggers	395	878	10/10/96
	5,910,920	01/08/1999	Keeth			
	5,920,518	07/06/1999	Harrison et al.			
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	5,949,254	09/07/1999	Keeth			
	5,959,481	09/28/1999	Donnelly et al.	327		
	5,959,929	09/28/1999	Cowles et al.			
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	6,028,451	02/22/2000	Ruff	326		
	6,029,250	02/22/2000	Keeth			

<b>Examiner Signature</b>		<b>Date Considered</b>	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>2</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Sheet	2	of	2	Attorney Docket Number	60809-5000

	6,029,252	02/22/2000	Manning			
	6,031,787	02/29/2000	Jeddeloh			
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	6,516,365 B2	02/2003	Horowitz et al.	710	104	

#### FOREIGN PATENT DOCUMENTS

Examiner Initials	Foreign Patent Document Country Code <sup>2</sup> - Number <sup>3</sup> - Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Class	Subclass	Translation	
						Yes	No
						X	

#### OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	Dally and Poulton, "Digital Systems Engineering", TOC, pp. 361-366 (1998)
	Intel, "82243BX Host Bridge Datasheet", pp. 2-4, 3-25 to 3-27, 4-19 to 4-20
	Intel, "Intel® 440BX AGPset: 82443BX Host Bridge/Controller: Datasheet", TOC: pp. 1-1 to 5-9 (1998)
	Poulton, "Signaling in High-Performance Memory Systems", ISSCC, 1-59 (1999)
	Song and Soo, "NRZ Timing Recovery Technique for Band-Limited Channels", <i>IEEE Journal of Solid-State Circuits</i> , 32(4):514-520 (1997)

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>2</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language Translation is attached.

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